### **Treatment Protocol: MEDICAL DEVICE MALFUNCTION**

Ref. No. 1206

- 1. Assess airway and initiate basic and/or advanced airway maneuvers prn (MCG 1302)
- 2. Administer **Oxygen** prn (MCG 1302)
- 3. Establish type of medical device inserted 1
- 4. Establish vascular access prn (MCG 1375)
- 5. For poor perfusion:

### Normal Saline 1L IV rapid infusion

Reassess after each 250 mL increment for evidence of volume overload (pulmonary edema); stop infusion if pulmonary edema develops

For persistent poor perfusion, treat in conjunction with TP 1207, Shock/Hypotension

- 6. Assess and document pain (MCG 1345)
- 7. For pain management (MCG 1345)

# Fentanyl 50mcg (1mL) slow IV push or IM/IN

Repeat every 5 min prn, maximum total dose prior to Base contact 150mcg

## Morphine 4mg (1mL) slow IV push or IM

Repeat every 5 min prn, maximum total dose prior to Base contact 12mg

**CONTACT BASE** for additional pain management after maximum dose administered: May repeat as above up to maximum total dose Fentanyl 250mcg or Morphine 20mg

8. For nausea or vomiting:

### Ondansetron 4mg ODT/IV/IM

- 9. Document *Medical Device Malfunction* as the Provider Impression if the patient's presentation suggests malfunction of the medical device, otherwise treat as per applicable protocol, for example:
  - Insulin Pump: Check blood glucose prn and treat in conjunction with TP 1203, Diabetic Emergencies
  - Vagal Nerve Stimulation devices: Treat presenting symptoms; for seizure treat per TP 1231, Seizure – Active
  - Ventricular Assist Device: CONTACT BASE and refer to MCG 1325
  - Ventriculoperitoneal (VP) Shunt: Treat presenting symptoms ②
  - Pacemaker or Automated Internal Defibrillator: Treat presenting symptoms and obtain 12-lead ECG prn (MCG 1308)

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### **SPECIAL CONSIDERATIONS**

- Most patients with an inserted medical device have medical complaints that are not related to the device itself and should be treated as per standard protocols based on presenting signs and symptoms. It is important to obtain a history of when the medical device was inserted as different complications occur depending on time since insertion.
- 2 Patients with ventriculoperitoneal shunts can have breakage of the shunt connections, obstruction, or infection of the shunt, which may present as ALOC, headache, nausea and vomiting, or fever.

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